

Date: Friday, 11/16/2007 7:20:14 AM  
 User: Kim Johnston

## Process Sheet

51

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : HELI-ACCESS STEP LH (FOLDING)
Job Number : 35797	
Estimate Number : 12567	
P.O. Number : <i>N/A</i>	Part Number : D412630033
This Issue : 11/16/2007 S.O. No. : <i>N/A</i>	Drawing Number : IIN D412-630
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>NA</i> Type : LARGE FAB ASSY	Drawing Revision : L
Previous Run : 33998	Material : <i>N/A</i>
Written By : <i>[Signature]</i>	Due Date : 12/20/2007
Checked & Approved By : <i>[Signature]</i>	Qty: <i>(3)</i> Um: Each
Comment : Est. Rev: A New Issue 06-11-08 JLM est rev B ecn 1019, added d2807-041 EC verified by: DD	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; create labels per PPP D412-630-033 CHG003

*7/4/20*

2.0	D2012107	Clevis
-----	----------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Clevis

Pick:

Qty	Part Number	Description
1	D2012-107	Clevis

Batch

*B33585**(x3)**mf*

3.0	D2803041	Bracket Assembly
-----	----------	------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bracket Assembly

Pick:

Qty	Part Number	Description
1	D2803-041	Bracket Assembly LH

Batch

*B29391**(x3)**mf*

4.0	D2804041	Bracket Assembly
-----	----------	------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bracket Assembly

Pick:

Qty	Part Number	Description
1	D2804-041	Bracket Assembly LH

Batch

*B27102**(x3)**B275610**07-11-28*

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HELI-ACCESS STEP LH (FOLDING)

Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

D2807041

GAS SPRING ASSEMBLY



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)  
Support Prop  
Batch: B35962 (FB) MF

6.0

D2813

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)  
Washer

Pick:

Qty Part Number Description  
2 D2813 Washer

Batch

B33578 (XB) MF

7.0

D3562041

STEP ASSEMBLY, LH



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)  
Step Weldment LH

Pick:

Qty Part Number Description  
1 D3562-041 Step Weldment LH

Batch

B35262 (X3) MF

8.0

D33951

Bushing



Comment: Qty.: 4.0000 Each(s)/Unit Total: 20.0000 Each(s)  
Bushing

Pick:

Qty Part Number Description  
4 D3395-1 Bushing

Batch

B32783 (X12) MF

9.0

AN3C21A

BOLT



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)  
BOLT

Pick:

Qty Part Number Description  
2 AN3C21A Bolt

Batch

M101189 (FB) MF

07-11-28

10.0

AN8C16

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s)  
Bolt  
Pick:

D

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: HELI-ACCESS STEP LH (FOLDING)

Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #:

Machine Or Operation:

Description :

Qty Part Number Description  
2 AN8C16 Bolt

Batch

M102736

(46)

mf

11.0

AN310C8

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Nut

Pick:

Qty Part Number Description  
2 AN310C8 Nut

Batch

M104679

(46)

mf

12.0

MS24665302

Cotter Pin



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Cotter Pin

Pick:

Qty Part Number Description  
2 MS24665-302 Cotter Pin (or AN380C3-4)

Batch

M16941

(46)

mf

13.0

NAS1515H3

Washer



Comment: Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)

Washer

Pick:

Qty Part Number Description  
6 NAS1515H3 Washer

Batch

M105164

(48)

mf

14.0

NAS1515H5L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

WASHER

Pick:

Qty Part Number Description  
4 NAS1515H5L Washer

Batch

M105728

(412)

mf

15.0

NAS1515H8

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Washer

Pick:

Qty Part Number Description  
4 NAS1515H8 Washer

Batch

M104811

(412)

mf

07-11-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: HELI-ACCESS STEP LH (FOLDING)

Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #: Machine Or Operation: Description :

16.0 MS210433 Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Nut

Pick:

Qty Part Number Description  
4 MS21043-3 Nut

Batch

M105728

X12

MF

17.0 MS24693C280 Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Screw

Pick:

Qty Part Number Description  
2 MS24693-C280 Screw (or MS24694-C565)

Batch

M101390

X1

MF 07-11-28

07/11/27

18.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
Assemble as per dwg D412-630 p.14

Coat all hardware with LPS3 rust inhibitor

A/R LPS3 batch: m104929

COAT exposed HARDWARE WITH LPS PROCYON .

A/R LPS PROCYON BATCH: m17045

MF 07-11-28 X3

19.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

X 07/11/27 X3

20.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

21.0 D28061 Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bushing

Pick: Packing Kit

Qty Part Number Description

Batch

B332773 2P

B33590 4P

07/11/27 (3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: HELI-ACCESS STEP LH (FOLDING)

Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #:

Machine Or Operation:

Description :

2

D2806-1

Bushing

22.0

D28063

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bushing

Pick: Packing Kit

Qty Part Number

Description

Batch

2 D2806-3

Bushing

1329842

W

23.0

D28105

Strut



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Strut

Pick: Packing Kit

Qty Part Number

Description

Batch

1 D2810-5

Strut

332695 1P  
332775 2P

W

24.0

D33961

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Spacer

Pick: Packing Kit

Qty Part Number

Description

Batch

2 D3396-1

Spacer

329496

W

25.0

AN4C6A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number

Description

Batch

1 AN4C6A

Bolt

1105426

W

26.0

AN4C10A

Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number

Description

Batch

1 AN4C10A

Bolt

1101189

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #:

Machine Or Operation:

Description :

27.0

AN4C15A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number

Description

Batch

2 AN4C15A

Bolt

M103918

28.0

AN44C7A

Eyebolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Eyebolt

Pick: Packing Kit

Qty Part Number

Description

Batch

1 AN44-C7A

Eyebolt

M101711

29.0

AN5C15A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number

Description

Batch

2 AN5C15A

Bolt

M101291

30.0

NAS1515H4

Washer



Comment: Qty.: 7.0000 Each(s)/Unit Total : 35.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number

Description

Batch

7 NAS1515H4

Washer

M104715 7X M101428 14

31.0

NAS1515H5

Washer



Comment: Qty.: 7.0000 Each(s)/Unit Total : 35.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number

Description

Batch

7 NAS1515H5

Washer

M105728 7 M105792 14

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/11/30  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: HELI-ACCESS STEP LH (FOLDING)

Job Number: 35797

Part Number: D412630033

Job Number:



Seq. #:

Machine Or Operation:

Description :

32.0

MS210434

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)

Nut

Pick: Packing Kit

Qty Part Number

Description

Batch

4

MS21043-4

Nut

~~ML05430~~

ML08793

33.0

MS210435

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total : 15.0000 Each(s)

Nut

Pick: Packing Kit

Qty Part Number

Description

Batch

3

MS21043-5

Nut

ML05430

ML08793 (3)

34.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

ML08793 (3)

35.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-630-033

Location: A

PPP Rev: A

ML08793 (3)

36.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

ML08793 (3)

Job Completion



ML08793

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

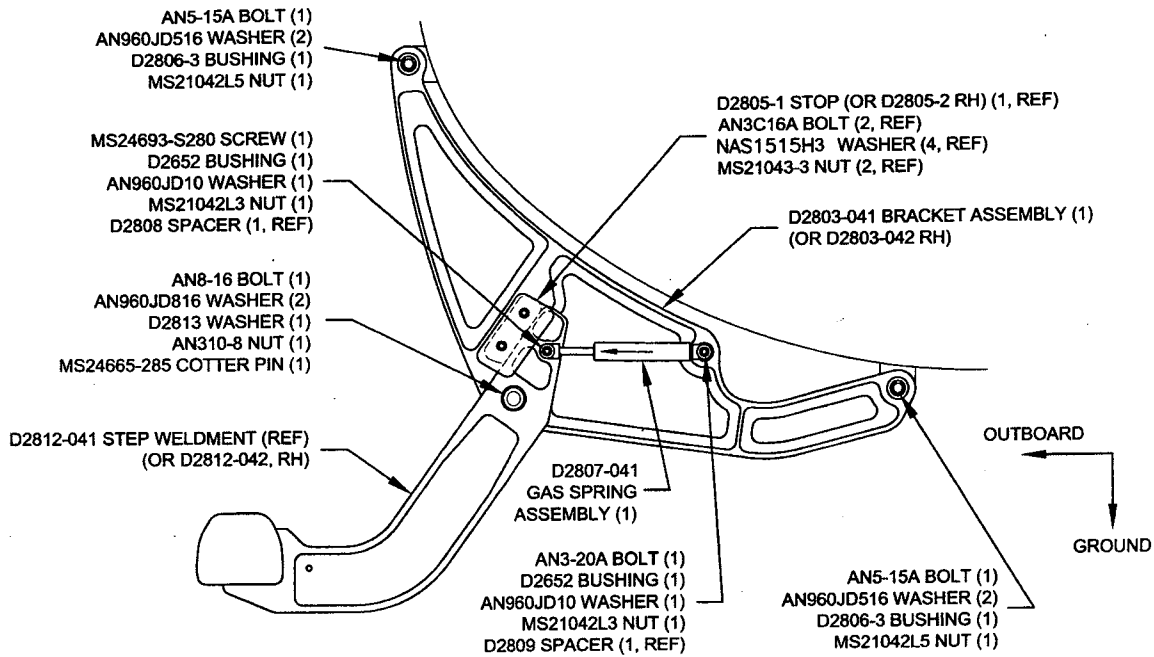
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

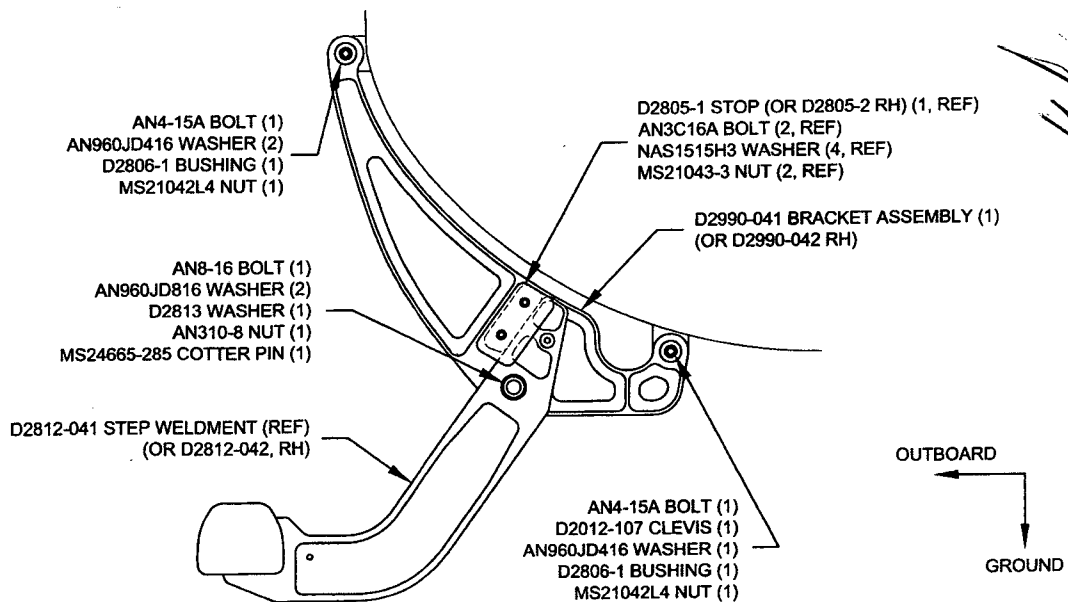
Qty -033	Qty -034	Qty -243	Qty -244	Part Number	Description
X				D412-630-033	HELI-ACCESS-STEP™ LH (FOLDING)
	X			D412-630-034	HELI-ACCESS-STEP™ RH (FOLDING)
1		X		D412-630-243	STEP ASSEMBLY LH
	1		X	D412-630-244	STEP ASSEMBLY RH
		1	1	D2012-107	CLEVIS
		1		D2803-041	STA 84 BRACKET ASSEMBLY LH
			1	D2803-042	STA 84 BRACKET ASSEMBLY RH
		1		D2804-041	STA 155 BRACKET ASSEMBLY LH
			1	D2804-042	STA 155 BRACKET ASSEMBLY RH
2	2			D2806-1	BUSHING
2	2			D2806-3	BUSHING
		2	2	D2807-041	GAS SPRING ASSEMBLY (WAS D2807)
1	1			D2810-5	STRUT
		2	2	D2813	WASHER
		1		D3562-041	STEP WELDMENT LH
			1	D3562-042	STEP WELDMENT RH
		4	4	D3395-1	BUSHING
2	2			D3396-1	SPACER
		2	2	AN3C21A	BOLT
1	1			AN4C6A	BOLT
1	1			AN4C10A	BOLT
2	2			AN4C15A	BOLT
1	1			AN44-C7A	EYEBOLT
2	2			AN5C15A	BOLT
		2	2	AN8C16	BOLT
		2	2	AN310C8	NUT
		2	2	MS24665-302	COTTER PIN (OR AN380C3-4)
		6	6	NAS1515H3	WASHER
7	7			NAS1515H4	WASHER
7	7			NAS1515H5	WASHER
		4	4	NAS1515H5L	WASHER
		4	4	NAS1515H8	WASHER
		4	4	MS21043-3	NUT
4	4			MS21043-4	NUT
3	3			MS21043-5	NUT
		2	2	MS24693-C280	SCREW (OR MS24694-C565)

SHOP COPY  
 RETURN TO  
 ENGINEERING  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 35797

**D412-630-011/-012 Heli-Access-Step™ Installation**



**FIGURE 4 – STA 84.29 for D412-630-011/-012 Heli-Access-Step™ Installation  
(View rotated 90° CW)**

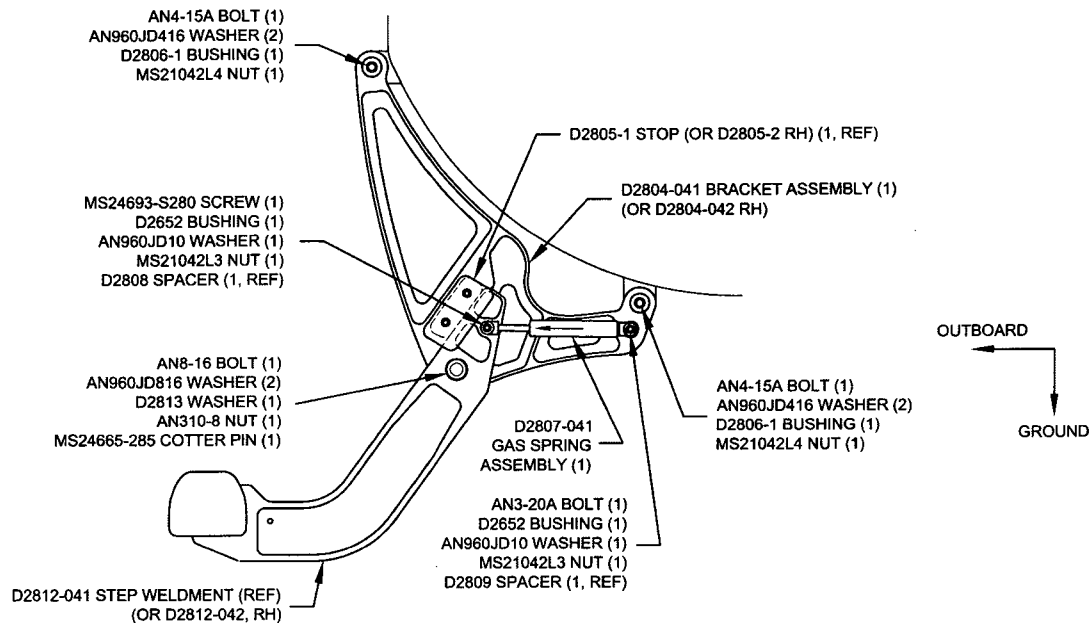


**FIGURE 5 – STA 129.00 for D412-630-011/-012 Heli-Access-Step™ Installation  
(View rotated 90° CW)**

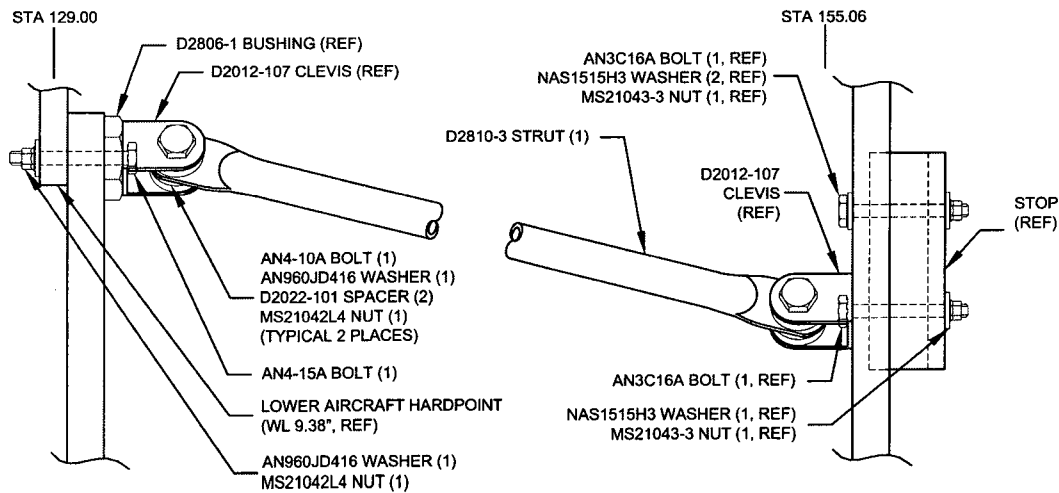
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Revision: L  
Date: 07.09.30

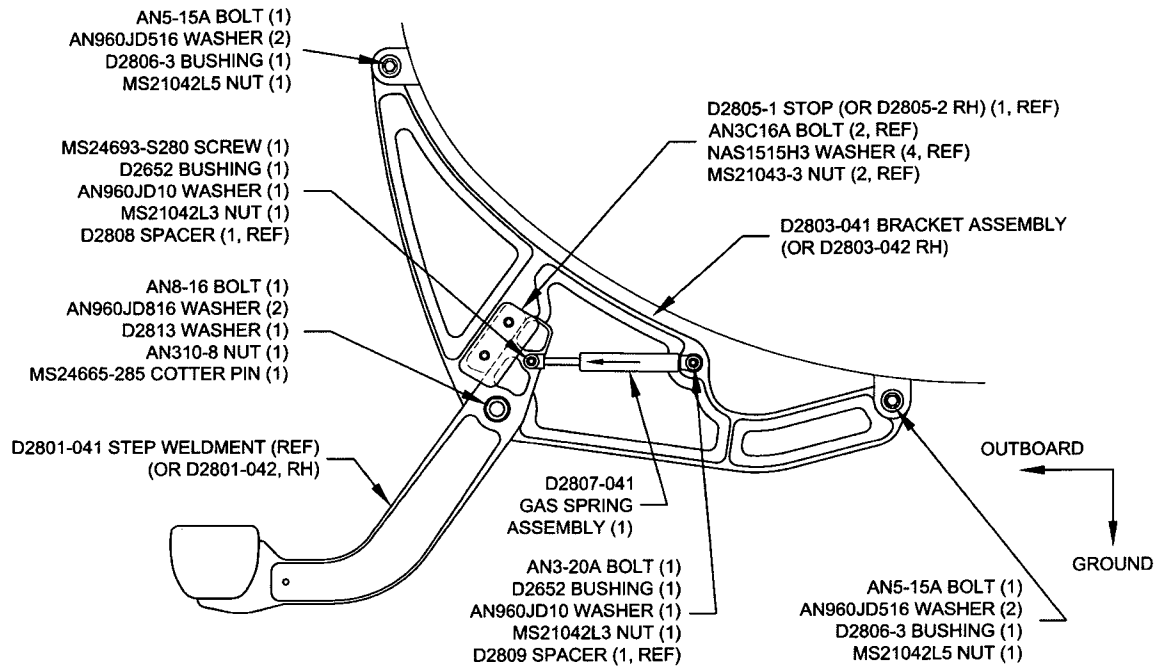




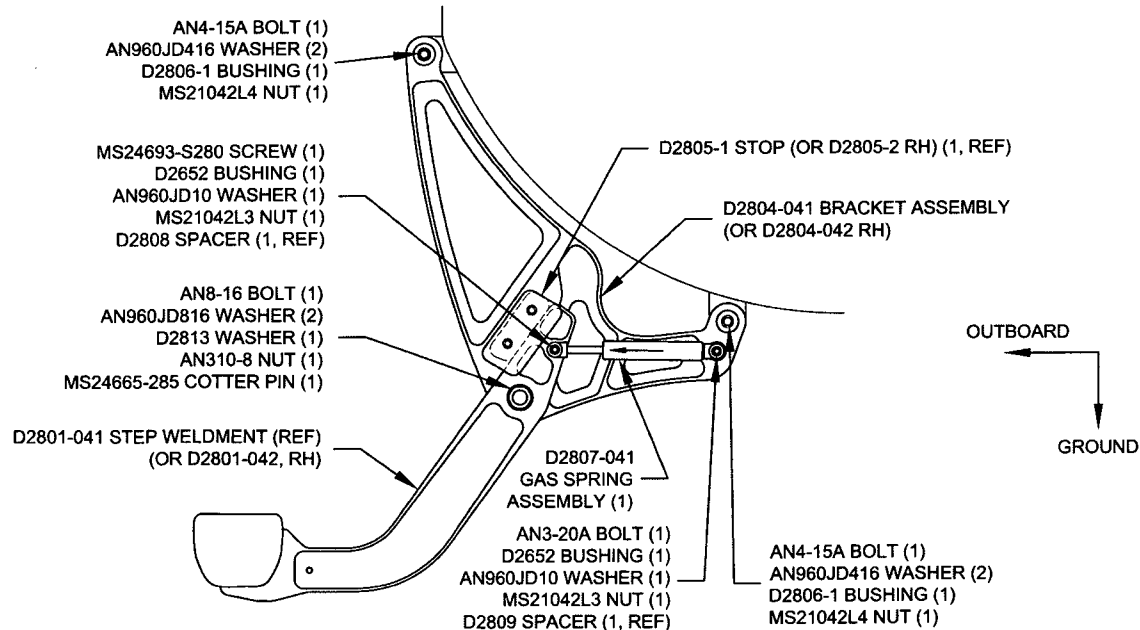
**FIGURE 6 – STA 155.06 for D412-630-011/-012 Heli-Access-Step™ Installation  
(View rotated 90° CW)**



**FIGURE 7 – Strut Detail for D412-630-011/-012 Heli-Access-Step™ Installation  
(NOT TO SCALE)**

**D412-630-013/-014 Heli-Access-Step™ Installation**

**FIGURE 8 – STA 84.29 for D412-630-013/-014 Heli-Access-Step™ Installation  
(View rotated 90° CW)**

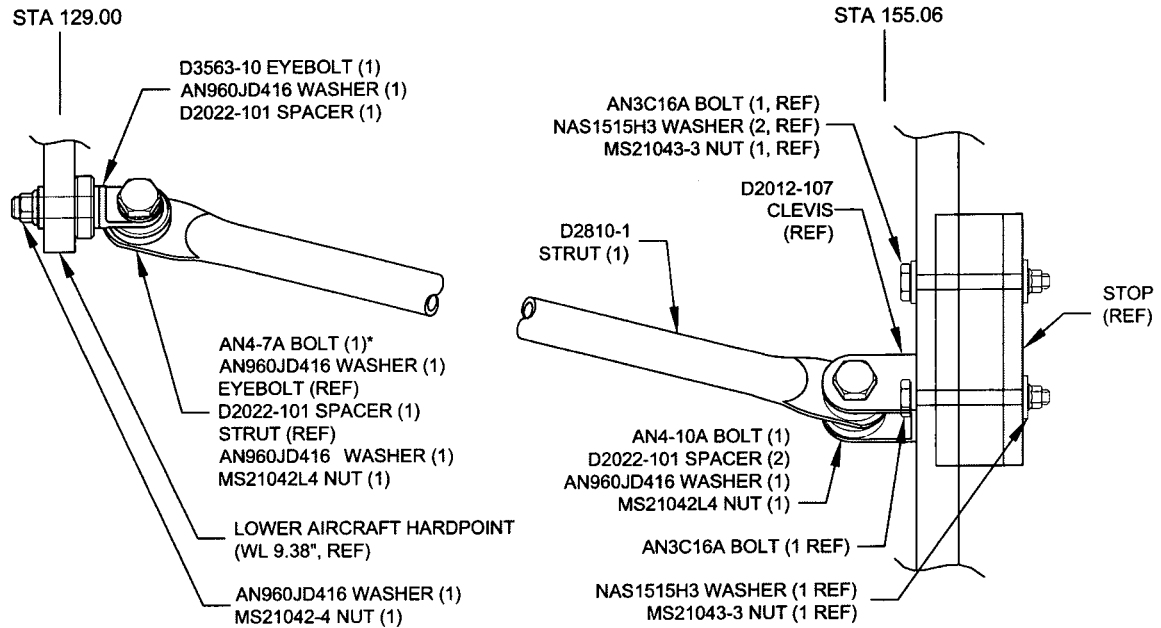


**FIGURE 9 – STA 155.06 for D412-630-013/-014 Heli-Access-Step™ Installation  
(View rotated 90° CW)**

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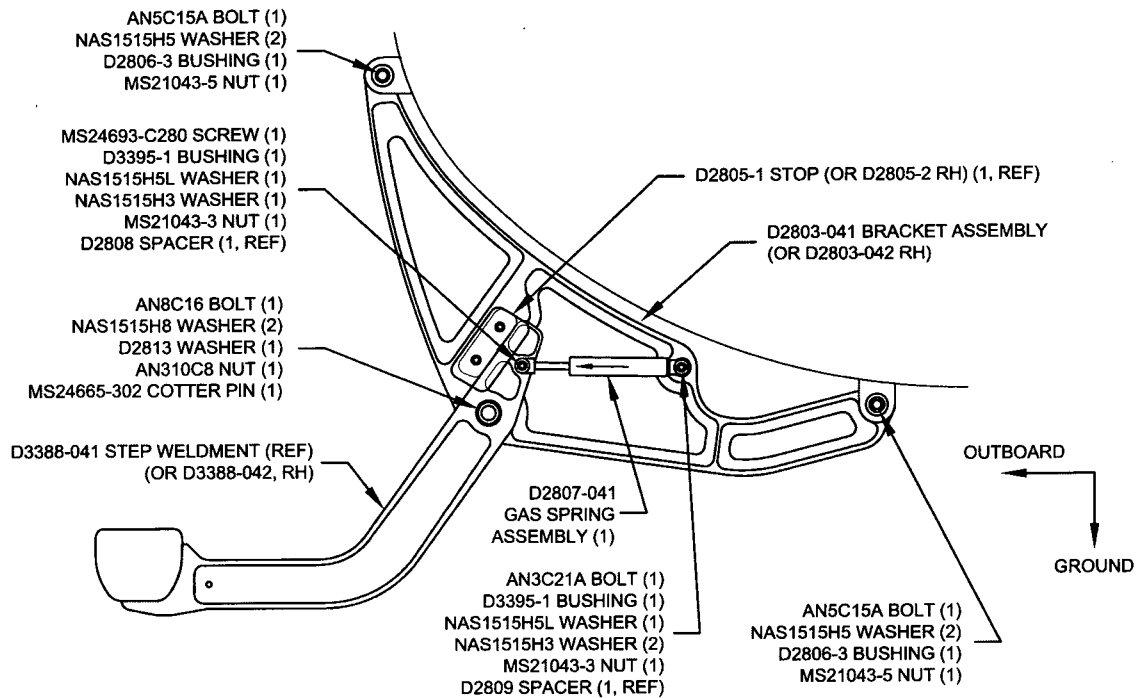
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Revision: **L**  
Date: 07.09.30

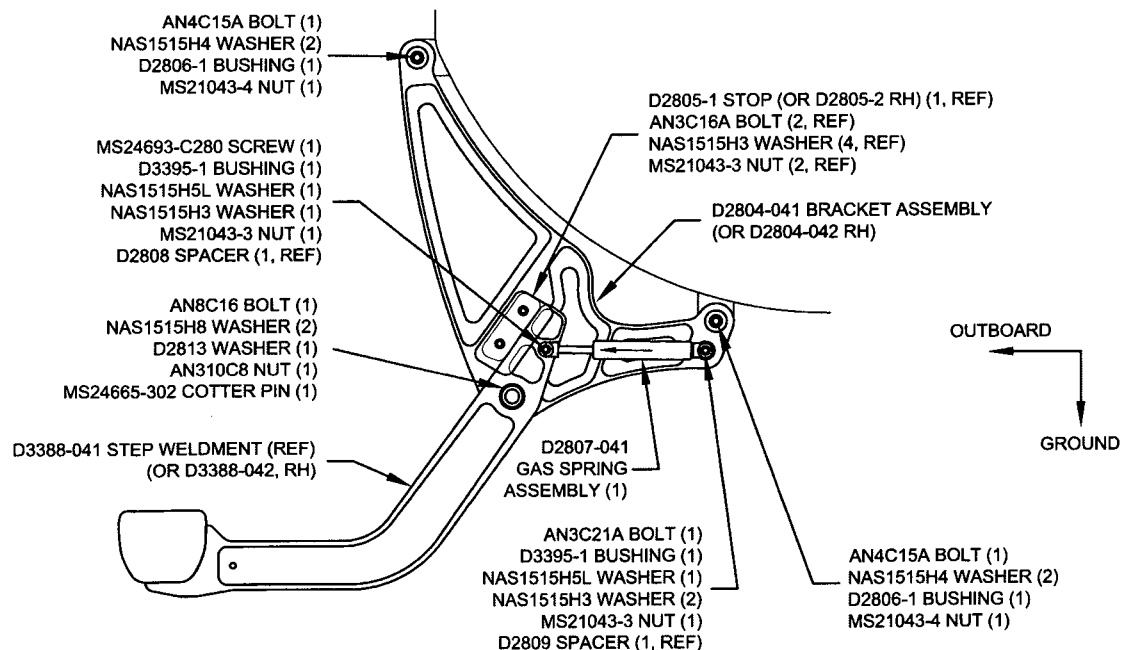


\* IF ADJUSTMENT OF THE STRUT IS REQUIRED TO AVOID OTHER HARDWARE ON THE AIRCRAFT, IT IS ACCEPTABLE TO USE LONGER AN4 BOLTS AND ADDITIONAL WASHERS AS REQUIRED TO ADJUST THE ATTACHMENT OF THE D2810-1 STRUT TO THE EYEBOLT.

**FIGURE 10 – Strut Detail for D412-630-013/-014 Heli-Access-Step™ Installation (NOT TO SCALE)**

**D412-630-023/-024 Heli-Access-Step™ Installation**

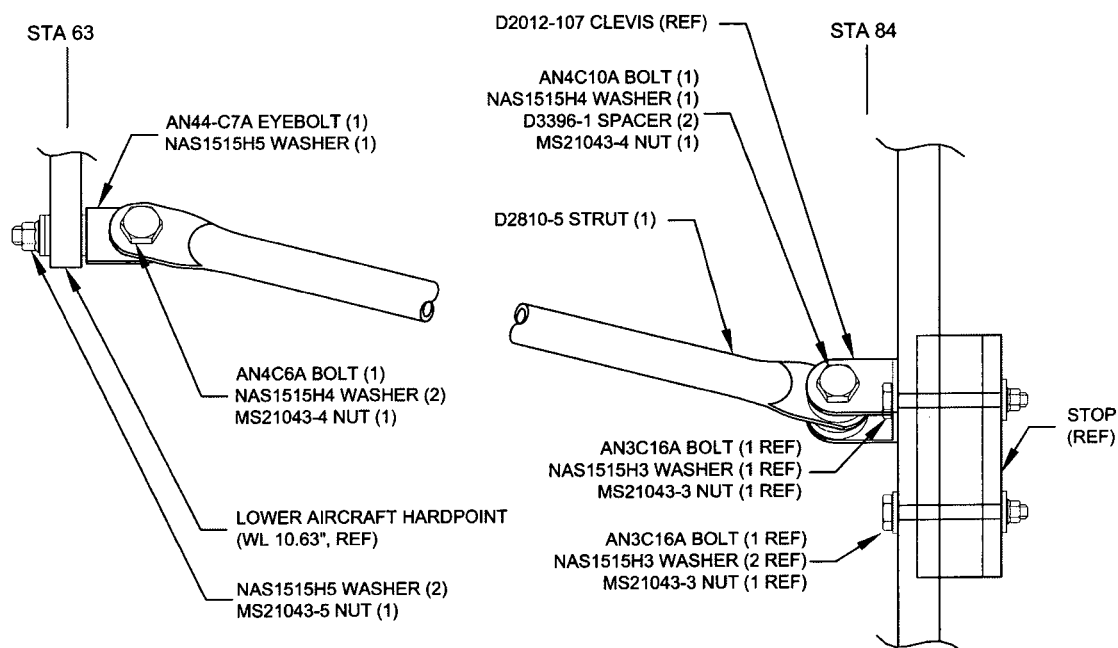
**FIGURE 11 – STA 84.29 for D412-630-023/-024 Heli-Access-Step™ Installation  
(View rotated 90° CW)**



**FIGURE 12 – STA 155.06 for D412-630-023/-024 Heli-Access-Step™ Installation  
(View rotated 90° CW)**

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Revision: L  
Date: 07.09.30



**FIGURE 13 – Strut Detail for D412-630-023/-024 Heli-Access-Step™ Installation  
(NOT TO SCALE)**

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